contain a further N or O atom and which can be mono- or poly-substituted by C_1-C_8alkyl;

R_{16} and R_{17} are each independently of the other mono- or poly-substituted C_1-C_{12}alkyl, C_2-C_{12}alkenyl, C_2-C_{12}alkynyl, C_3-C_{12}cycloalkyl, C_3-C_{12}cycloalkenyl, C_3-C_{12}heterocycloalkyl, C_7-C_{12}aralkyl, C_6-C_{10}aryl or C_5-C_9heteroaryl;

M^r is a transition metal cation having r positive charges;

A^{m-} is an inorganic, organic or organometallic anion, or a mixture thereof;

Z^{n+} is a proton, a metal, ammonium or phosphonium cation, a positively charged organic or organometallic chromophore, or a mixture thereof;

it being possible once or more times radicals of the same or different ligands L_1, L_2, L_3 and/or L_4, each selected from the group consisting of R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, R_{15} and R_{16}, to be bonded to one another in pairs by way of a direct bond or an -O-, -S- or -N(R_{17})- bridge, and/or for from 0 to p anions A^{m-} and/or from 0 to q cations Z^{n+} each to be bonded to any radical R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{13}, R_{14}, R_{15}, R_{16} or R_{17} of the same or different ligands L_1, L_2, L_3 and/or L_4 or to M^r by way of a direct bond or an -O-, -S- or -N(R_{17})- bridge;

k is an integer from 1 to 6;

m, n and r are each independently of the others an integer from 1 to 4; preferably m and n are 1 or 2 and r is 2 or 3; o is a number from 1 to 4; and

[[o,**]]** p and q are each a number from 0 to 4, the ratio of o, p and q to one another, according to the charge of the associated sub-structures, being such that in formula (I), (II) or (III) there is no resulting excess positive or negative charge;

and with the further proviso that when R_1, R_3, R_4, R_5, R_7 and R_8 are all H, R_2 is OH, R_6 is NO_2, M is Co and r is 3, $[Z^{n+}]_q$ does not have the formula